London

Cite this as: *BMJ* 2021;372:n695<http://dx.doi.org/10.1136/bmj.n695>

Published: 11 March 2021

Check covid status when planning emergency bowel surgery, doctors are told

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Clinicians are being advised to seriously consider a patient's covid-19 infection status when planning emergency bowel surgery, as a national audit has found that patients who were positive for the virus had significantly higher mortality rates.

The research, carried out during the first wave of the pandemic, found that patients with covid-19 were 26% more likely to die within 30 days of their surgery than would have been expected if they did not have covid-19.¹

Even in non-pandemic times emergency laparotomy is one of the highest risk operations a patient can undergo, with a risk of death almost 10 times greater than from major elective gastrointestinal surgery.

Ravi Mahajan, president of the Royal College of Anaesthetists, which led the research, said, "We cannot ignore the serious impact a positive covid test has on the 30 day mortality rates for patients undergoing the surgery. We call on all clinicians to seriously consider covid infection status when planning care and discussing treatment options with patients and their families.

"It is vital that everyone is fully informed before making a decision to undergo a surgery that may have devastating consequences."

Maintained care standards

The interim report of the National Emergency Laparotomy Audit covers patients undergoing this type of surgery from 23 March to 30 September 2020, with data from 170 hospitals in England and Wales. It shows that 10 546 patients had emergency bowel surgery during this period, compared with 13 024 in the same period in 2019—a 20% reduction.

Of those 10 546 patients, 867 had a perioperative diagnosis of covid-19 either from a positive reverse transcriptase-polymerase chain reaction (RT-PCR) test or from showing clinical signs and symptoms of covid-19, particularly in the early phase when widespread testing was not available.

The 30 day mortality rate among covid-19 positive patients was 12.5%, which was 26% higher than the predicted risk of death of 9.9% had they not had covid-19. However, mortality rates improved in covid negative patients. The audit found that the 30 day mortality rate among patients who were covid negative was 7.2%, which was 15% lower than predicted. The median length of stay was 12 days in covid-19 positive patients and nine days in non-covid patients. This compares with 10 days during the same period the previous year.

The report, commissioned by the Healthcare Quality Improvement Partnership, said it was reassuring that

clinicians managed to maintain and improve standards of patient care despite the pressure of the pandemic. It found that 96.6% of high risk patients had a consultant surgeon present in theatre, compared with 94.6% in 2019. It also found that 93% of high risk patients had a consultant anaesthetist present in theatre, compared with 92.5% the previous year. Another key standard of care, preoperative assessment of risk, also improved from 84.7% in 2019 to 85.3% in 2020.

Despite the overall demand for critical care beds during the pandemic 82% of all high risk laparotomy patients were still admitted to critical care, although this was down from 86.4% in 2019.

The report said that the influence of covid status on mortality would need to be analysed further. It said that the apparent 26% higher mortality rates among covid positive patients and the lower mortality rates for patients without covid-19 may be multifactorial. They may represent the trajectory of improving mortality rates over the past few years, the report said, but they may also reflect changes in decision making so that very high risk patients were offered alternative management pathways rather than surgery.

¹ National Emergency Laparotomy Audit. The impact of covid-19 on emergency laparotomy—an interim report of the national emergency laparotomy audit. Mar 2021. https://www.nela.org.uk/downloads/COVID_analysis_08%20Mar%202021.pdf.